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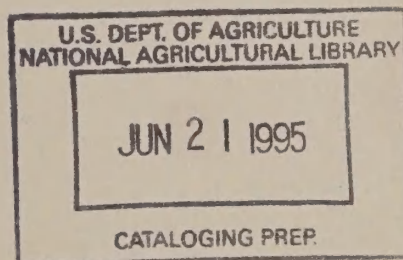
March 1992



Managing Competing and Unwanted Vegetation

Final Environmental Impact Statement

Amendment to 1988 Record of Decision



Amendment

to

Record of Decision

for

USDA Forest Service

Pacific Northwest Region

Final Environmental Impact Statement

Managing Competing and Unwanted Vegetation

February 1992

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INTRODUCTION

Background

The Record of Decision (ROD) of December 8, 1988, for the Final Environmental Impact Statement for Managing Competing and Unwanted Vegetation includes mitigation measures to reduce the human health risks associated with vegetation treatment methods. Three mitigation measures in the ROD prohibit women from performing certain herbicide applications because potential risks of gender-specific health effects from direct contact exceeded levels identified by the Forest Service as acceptable risks.

On March 20, 1991, the U.S. Supreme Court decided International Union v. Johnson Controls, Inc., 111 S.Ct. 1196 (1991). The Supreme Court concluded that an employer is prohibited from discriminating against a woman because of her capacity to become pregnant, unless her reproductive potential prevents her from performing the duties of her job. The Forest Service has determined that the three mitigation measures from the Record of Decision appear to be inconsistent with this Supreme Court ruling.

Purpose of This Amendment

This amendment to the 1988 ROD removes the gender-specific mitigation measures to comply with the Supreme Court's ruling. This amendment adds nine, new mitigation measures to avert potential risks to human health that could occur because the gender-specific measures are no longer in effect.

This amendment changes how the Pacific Northwest Region protects workers from gender-specific health effects, while protecting them from discrimination in employment. No other provisions of the selected alternative for the Regional program, Alternative H, or the ROD are changed.

No provisions of the Mediated Agreement are affected by revoking gender-specific worker restrictions. (The "Mediated Agreement" is a legal document signed by parties to the lawsuit under which the Forest Service had been enjoined since 1984 from applying herbicides in the Pacific Northwest Region. Under the agreement, the parties jointly moved the court to dissolve the injunction and dismiss the complaint against the Forest Service with prejudice, and the Forest Service agreed to comply with additional requirements for implementing the ROD.)

THE ACTION

As indicated in Appendix A, gender-specific worker restrictions will be removed from the mitigation measures for vegetation management projects listed in the ROD, page 19. The mitigation measures being removed are:

- Female workers (either Forest Service employees or contract workers) will not be used as mixers or loaders in atrazine or bromacil applications.

- Female workers (either Forest Service employees or contract workers) will not be used in backpack spray or hack-and-squirt operations involving the application of 2,4-D, glyphosate, dicamba, tebuthiuron, triclopyr, simazine, or bromacil.
- Female workers (either Forest Service employees or contract workers) will not be used in dalapon applications.

In addition, the footnote on page 19 of the ROD will be removed. The revised footnote, with gender-specific language eliminated, is now mitigation measure #1.

As a part of this action, nine new mitigation measures will be added:

- #1-- Research studies, including both laboratory studies of animals and studies of human populations, demonstrate the potential for gender-specific adverse health effects of glyphosate, dicamba, tebuthiuron, triclopyr, simazine, bromacil, atrazine, 2,4-D, and dalapon. Any employees not wanting exposure to these herbicides will be given alternate work assignments that do not involve direct contact with herbicides. There are many assignments, even in herbicide operations, which do not involve direct contact with herbicides.
- #2-- The herbicide dalapon will not be used unless its registration is restored by the EPA.
- #3-- Each worker on herbicide application projects, whether Forest Service employee or contract employee, shall be informed of any known potential human health effects of the specific herbicides to be used prior to starting the project. Each worker will be provided with a copy of the "Methods Information Profile for Herbicides" and the relevant "Herbicide Information Profiles" produced by the Pacific Northwest Region. Prior to beginning the project, each worker shall sign a statement indicating that she or he has reviewed the material, and either agrees to work on the project as assigned, or requests a reassignment.
- #4-- All herbicide application projects shall have available at the work site a permanent or portable eyewash unit and other washing facilities with a supply of uncontaminated water and soap sufficient to wash hands as required and the entire body in the event of accidental contact with herbicides.
- #5-- All workers should have a complete change of clothes available at the work site in case of accidental exposure to herbicides. A complete set of clean clothes should be worn daily.

- #6-- Where premixed packages exist in operationally efficient quantities for herbicide formulations selected for use, they shall be used. Exposure-reducing equipment such as drip-free couplings and nozzle shields for hand-held spray wands shall be identified in the Job Hazard Analysis. Where effective in reducing exposure under the site-specific conditions of the project, this equipment shall be used in both Forest Service and contract operations.
- #7-- While mixing or loading atrazine for aerial or vehicle-mounted operations, all workers shall wear, in addition to items which may be required by the herbicide label or material safety data sheets, the following personal protective equipment made from material impervious to the herbicides involved: boots, long unlined gloves, sleeved aprons (gowns), and a face shield which curves in at the neck. Relevant contracts shall require the same equipment for contract workers.
- #8-- While mixing or loading simazine* for aerial operations, all workers shall wear, in addition to items which may be required by the herbicide label or material safety data sheets, the following personal protective equipment made from material impervious to the herbicides involved: boots, long gloves, sleeved aprons (gowns), and a face shield which curves in at the neck. Relevant contracts shall require the same equipment for contract workers.
- #9-- For all backpack or hack-and-squirt applications involving glyphosate, dicamba, tebuthiuron, triclopyr, simazine, bromacil, atrazine, or 2,4-D, the following equipment made from material impervious to the herbicides involved shall be available at the job site for each worker: overpants and jacket or coveralls, hood, unlined gloves, face shields, and goggles. These items may be either disposable or reusable; in either case they must be used in accordance with manufacturer's directions and may not be used beyond the manufacturer's recommended wear-times. Workers may elect to use all or any of these items. However, impervious gloves and rubber boots (which it may be the responsibility of the worker to purchase) as well as any items required by the herbicide labels or material safety data sheets must always be worn. Contracts for the application of the herbicides specified above shall require the provision of the personal protective equipment specified in this measure.

* A transcription error in the 1988 ROD erroneously prescribed limitations on mixing/loading bromacil. This amendment correctly refers to simazine in place of bromacil; cf. Characterization and Management of Risk, page 54.

For insertion into A Guide to Conducting Vegetation Management Projects in the Pacific Northwest Region:

All contracts for herbicide application projects shall require compliance with the procedures for informing workers of potential health risks, and with the hygiene provisions contained in the ROD. The Contracting Officer's Representative shall satisfy her/himself that facilities which comply with the above requirements are on-site prior to authorizing commencement of work. Contract reports filed at the termination of the contract shall include certification by the contractor that contract employees were provided with the required information in a language they could understand.

All workers shall wash their hands prior to all breaks, prior to smoking, eating or use of other ingestibles, and immediately after ending the work day, and shall be advised not to touch other body parts before washing.

A supplement to the EIS is not necessary. Council on Environmental Quality Regulations (40 CFR 1502.9(C)) require preparation of a supplement to an Environmental Impact Statement if the agency makes substantial changes in the proposed action that are relevant to environmental concerns; or there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. Neither situation applies in this instance. Removal of the three mitigation measures does not constitute a substantial change in the ROD. It revises the implementation procedures to comply with existing laws. Both female and male workers will continue to be protected from uninformed or involuntary exposure to herbicides. There are no new circumstances or information relative to environmental concerns involved in this amendment.

In addition to the action discussed above, other suggestions which are covered in the Public Comment section below were considered.

RATIONALE

Three gender-specific mitigation measures will be removed from the ROD to comply with federal law as decided by the Supreme Court in International Union v. Johnson Controls, Inc. These restrictions, if not removed, could constitute illegal discrimination in employment.

The removal of the three gender-specific mitigation measures does not affect potential human health risks to members of the public.

By removing these restrictions, the potential for adverse health effects to female workers could increase. However, three remaining provisions of the ROD and Mediated Agreement, coupled with two of the new mitigation measures in this amendment will protect both female and male workers from uninformed and involuntary exposure. In addition, seven other new mitigation measures provide additional protection against exposure to all workers while eliminating previous discriminatory restrictions.

The three remaining provisions referred to above are:

- The ROD directs that "Females, or other employees not wanting exposure to these herbicides will be given alternate work assignments that do not involve direct contact with herbicides. There are many assignments, even in herbicide operations, that do not involve direct contact with herbicides." (ROD, p. 19) This provision, rewritten to comply with the lessons of the Supreme Court opinion, is retained in this amendment.
- The Mediated Agreement commits the Forest Service to prepare information profiles describing each herbicide available for use, including its potential human health effects, in plain language. The information profiles will be available to workers, decisionmakers, and the public (Stipulated Order, pp. 21-23).
- The ROD and Mediated Agreement commit the Forest Service to monitor and evaluate new information on vegetation treatment methods, including herbicides. The Forest Service is currently putting procedures in place to do so. Information profiles will be revised if new information indicates significant differences from previous predictions of effects (Stipulated Order, p. 13, and pp. 23-24).

The combined effect of these existing measures along with the proposed new mitigation measures maintain or enhance the commitments of the ROD to protect human health. One mitigation measure expands the agency requirements to actively inform workers about herbicides before they agree to apply herbicides. Other new mitigation measures expand the availability of protective clothing and equipment for employees who choose to work on herbicide projects, to allow them to reduce their potential exposure. And the opportunity for any worker to obtain alternative assignments is reaffirmed.

PUBLIC COMMENT

Public comment on proposed amendments to the ROD was solicited by a letter from the Regional Forester to a mailing list derived from those who had received the FEIS in 1988 (approximately 6000 people).

Sixty-six letters were received in response, representing 1.1% of those whose comments were solicited. Eighteen letters were written on official stationery of governmental agencies, educational institutions, environmental organizations, or private industry; the remainder were submitted by individuals acting on behalf of themselves or their families. A majority of respondents supported elimination of the current restrictions on female employees, either expressly (19) or by implication.

In addition, a large number of respondents included specific recommendations for agency action. Recommendations were grouped into one or more of four areas: 1) those which supported additional procedures for protecting human health; 2) those which suggested procedures designed to ensure and document worker understanding of the risks of herbicide applications; 3) those which would limit the ability of workers to exercise personal judgement when making decisions about accepting work involving herbicides; and 4) those which were outside the scope of the amendment or were non-substantive. Detailed descriptions of these areas follow.

Public comment on protective procedures: A significant number of respondents (26) supported additional procedures designed to further protect all employees from direct contact with herbicide. Eleven responses suggested that use of additional protective clothing or equipment (such as chemically impermeable clothing) should be mandatory rather than at the option of the employee. One respondent added that other employee safety concerns such as the potential for heat exhaustion should be figured into the equation.

Another respondent suggested that the equipment be physically issued to each worker on the site, so that workers would have to make an effort to refuse to wear it rather than merely verbally refusing it.

Ten respondents recommended that premixed formulations and items such as drip-free couplings should be required (although increased cost was recognized), and several letters supported one or more of the following:

- 1) Requiring a complete physical and toxicological workup for each worker prior to beginning applications;
- 2) Providing a portable shower as well as hand- and eye-washing facilities on the work site;
- 3) Providing extra changes of clothes and clothes washing facilities at campsites for multiple-day projects;
- 4) Mandating hand washing before all breaks, eating, and at end of day;
- 5) Prohibiting any ingestibles (food, tobacco, etc.) on the work site;
- 6) Replacing backpack operations with the use of ATV's and mechanized sprayers; and
- 7) Developing a "handling plan" for herbicides and having a non-applicator observe its implementation.

Forest Service response: Certain items of protective clothing will be mandatory for those mixing and loading operations which were previously identified (FEIS, "Characterization of Risk," p. 54) as operations which presented unacceptable levels of risk for women. These requirements will apply equally to men and women.

For backpack and hack-and-squirt operations, certain items of protective clothing must be on hand at the work site for each employee to wear if desired. At a minimum, all employees must wear impermeable boots, unlined impermeable gloves, and other clothing specified by the herbicide label and material safety data sheets. Additional protective clothing will remain available at the option of the employee, because site conditions will influence the need for and effectiveness of protective clothing. Supervisor/worker discussion of site-specific protection needs is preferred to inflexible requirements to use certain equipment at all times, regardless of site conditions.

Where premixed formulations of the selected herbicide exist in sizes feasible for forestry applications, they will be used, regardless of additional cost. Drip-free couplings, spray nozzle shields, and other protective equipment will be used where the Job Hazard Analysis indicates they would be effective in reducing exposure under the site-specific conditions of the project.

The existing provisions of the Health and Safety Code (Forest Service Handbook 6709.11) which require eyewash facilities at the work site during herbicide operations have been restated as a mitigation measure. A portable shower is not required by those provisions. However, an adequate supply of uncontaminated water and soap for washing the entire body in case of accidental contact will be required.

A new measure advises workers to wear clean clothes daily and to bring an extra set of clothes to the work site. Individuals may decide for themselves how to supply themselves with adequate clean clothing for project work.

This amendment will not detail all the specific personal hygiene requirements suggested by some of our respondents. Direction for washing hands before breaks, not smoking or eating before washing, etc., will appear in regional guidance. Prohibiting ingestibles on the work site will not be necessary if personal hygiene procedures are followed.

"Handling plans" are currently required within the context of overall project planning and the Job Hazard Analysis. Having a non-applying worker observe the operations for safety is already required for certain operations and is a site-specific option for others. Similarly, substituting ATV operations for backpack operations remains a site-specific option. While appropriate for some circumstances, there are many sites such as steep slopes where the use of ATV's would be either dangerous or ineffective.

The human health risk analysis in the FEIS concludes that the risk of applying herbicides is acceptable if mitigation measures are applied. A health effects reporting system has been developed to identify and document any trends in illness or injury associated with any method of vegetation management, including the use of herbicides. Providing physical evaluations for workers is not warranted, based on health effects predicted for these operations.

Public comment on informative procedures: Almost all respondents who dealt with the issue (16) supported the concept that workers should be provided with sufficient information to decide for themselves whether or not to apply herbicides. Additional comments centered on ensuring and documenting employee understanding of the material.

Suggestions included:

- 1) Having contractors certify that workers have been trained in safe handling/application procedures for herbicides;
- 2) Ensuring that written information is easy to understand, scientifically sound, and actually read by prospective employees;
- 3) Providing a health professional to respond to worker questions on herbicides;

- 4) Requiring a signed statement or a test to ensure that the worker has read and understands the material;
- 5) Providing a written form for the worker to indicate what personal protective equipment she/he wishes to use; and
- 6) Emphasizing to the employee that herbicide safety is generally controversial.

Forest Service response: Procedures for informing workers of potential health effects of herbicides have been clarified. Additional regional guidance will ensure that all Forest Service contracts for herbicide projects contain clauses implementing the informational procedures and protective equipment required by this document. Contractors will be obligated to ensure that their employees receive the required information in a language they can understand. All these procedures are in addition to numerous Federal and State laws concerned with the application of herbicides, including training. Current regional policy requires that contractors certify the type of herbicide training each worker has received. Applicators, except those applying general-use herbicides with non-motorized equipment, are also required to be licensed in the state in which they are applying the herbicide. This license requires the passing of a written test.

Each worker will be required to sign a statement that she/he has reviewed the information provided, and either agrees to work or requests a reassignment not involving direct contact with herbicides.

The Forest Service will provide information on potential health effects of herbicides through Information Profiles produced by the PNW Region. These profiles will discuss possible effects, risk assessments of Forest Service projects, and the quality of available information. Local poison control centers are identified in project plans in case a spill or accident occurs. If these sources do not resolve a worker's concerns about personal safety or effects, the Forest Service will not encourage the worker to apply or be exposed to herbicides for that particular operation.

The controversial nature of the issue is already discussed in the Vegetation Management Treatment Methods Profile for Herbicides published by the PNW Region in 1991.

Public comments on limiting procedures: Five responses which would limit worker discretion opposed removing the current gender-restrictions, generally because of concerns over individual judgement abilities. One response urged the agency to actively discourage females from applying the herbicides in question. One response suggested the agency provide pregnancy test kits for use by female workers. Seven responses stated the agency should eliminate discrimination by prohibiting both males and females from applying herbicides.

Forest Service response: To continue to restrict women, or to actively discourage them from herbicide applications is inconsistent with the Supreme Court decision in the Johnson Controls case. Restricting both men and women from these operations would eliminate management options provided by the Preferred Alternative in the FEIS. These options were rigorously examined before approval in the 1988 Record of Decision.

Since, under the terms of the Johnson Controls decision, female workers would not be prohibited from approved herbicide projects, whether pregnant or not, the decision whether to obtain pregnancy testing remains the personal choice of the individual worker.

Public comment deemed outside the scope: Twenty-five responses were assessed (at least in part) as being beyond the scope of the ROD amendment. These included comments which advised the agency to cease use of the herbicides in question, or of all herbicides altogether. Some letters also advised the agency that there is no assurance that protective regulations will be followed or that protective equipment will actually work. Twelve other responses either duplicated provisions already in the ROD or could not be addressed in the ROD (e.g., one said it was a waste of time to seek public comment).

Forest Service response: The Forest Service continues to recognize, as it did in 1988, that there is substantial concern in the general public over the use of herbicides. The relative safety of the herbicides available for use in the PNW Region and the specific accompanying mitigation measures in the original ROD and this amendment are intended to minimize risk to the human and natural environment. Although no method of applying herbicides can guarantee zero exposure to any worker, exposure can be reduced. The educational program described in this amendment, coupled with Forest Service requirements on equipment and hygiene will substantially reduce the likelihood of exposure. For greater detail, please refer to the FEIS Managing Competing and Unwanted Vegetation, which is available from any Forest Service office in the PNW Region, or from the Regional Forester at the enclosed address.

As part of their participation in the development of this decision, the Northwest Coalition for Alternatives to Pesticides (NCAP) submitted two articles which suggested that some herbicides might have reproductive effects on males as well as females. This information will be considered by the PNW Region under the Mediated Agreement as a potential source for revisions of the Risk Analysis, pending further toxicological evaluation. It does not directly affect this amendment and the mitigation measures which are designed to protect both males and females equally.

IMPLEMENTATION

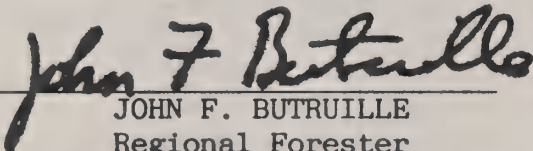
This decision may be implemented seven days following publication of legal notice in The Oregonian, Portland, Oregon, and The Seattle Post-Intelligencer, Seattle, Washington.

APPEAL RIGHTS

This Decision may be appealed in accordance with the provisions of 36 CFR 217 by filing a written notice of appeal within 45 days of the date of publication of legal notice of this Decision in The Oregonian and the Seattle Post-Intelligencer. Two copies of the appeal must be filed with the reviewing officer:

F. Dale Robertson, Chief
USDA Forest Service
P.O. Box 96090
Washington, D.C. 20090-6090

The notice of appeal must include sufficient narrative evidence and argument to show why this decision should be changed or reversed (36 CFR 217.9). Only the decisions to remove three gender-specific mitigation measures, and to add new measures are subject to appeal.


JOHN F. BUTRUILLE

Regional Forester
Pacific Northwest Region

2-27-92
Date

APPENDIX A - IMPLEMENTATION

In the 1988 Record of Decision for the FEIS Managing Competing and Unwanted Vegetation, page 19:

DELETE: Paragraphs 4 through 6, each of which begins "Female workers."

DELETE: Entire footnote which begins "Research studies."

ADD: From the 1992 Amendment to the Record of Decision, pages 2-3, the paragraphs labeled #1 through #9, inclusive.

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